

ii. capturing the Reactant\* in the DZ in an amount related to the amount of analyte in the sample,

wherein

A) the Reactant\* has labeled particles as an analytically detectable group,  
and

B) the Capturer is anchored to the matrix by immobilized particles which exhibit hydrophilic groups on their surface, wherein the particles anchoring the Capturer have a diameter smaller than a smallest inner dimension of the flow channels of the flow matrix and do not interfere with detection of Reactant\* in the detection zone.

43. (Amended) The method according to claim 42, wherein immobilization of a biospecific affinity reactant by covalent binding is to the hydrophilic groups on the Capturer particles.

44. (Amended) The method according to claim 42, wherein immobilization of a mixture of biospecific affinity reactants is to the hydrophilic groups on the Capturer particles.

DI 45. (Amended) The method according to claim 42, wherein immobilization of a mixture of biospecific affinity reactants found in allergen extracts is to the hydrophilic groups on the Capturer particles.

46. (Amended) The method according to claim 42, wherein immobilization of a mixture of biospecific affinity reactants found in biological material used to detect autoantibodies is to the hydrophilic groups on the Capturer particles.

47. (Amended) The method according to claim 42, wherein the hydrophilic groups are hydroxy, carboxy, amino or sulphonate groups.

48. (Amended) The method according to claim 42, wherein the analyte is an antibody of IgE or IgG type with specificity to allergens.

49. (Amended) The method according to claim 42, wherein the analyte is an antibody of IgG, IgM or IgA type with specificity to autoantigens.

50. (Amended) The method according to claim 42, wherein the particles anchoring the Capturer have a size in the range of 0.1-100  $\mu\text{m}$  and the flow channels of the matrix have a smallest inner dimension in the range of 0.4-100  $\mu\text{m}$ .

51. (Amended) The method according to claim 42, wherein the particles which anchor the Capturer have a size in the range of 0.1-1000  $\mu\text{m}$ .

52. (Amended) The method according to claim 42, wherein the particles which anchor the Capturer have a size in the range of 0.1-100  $\mu\text{m}$ .

53. (Amended) The method according to claim 42, wherein the labeled particles in the Reactant\* have a diameter in the range of 0.01-5  $\mu\text{m}$ .

54. (Amended) The method according to claim 42, wherein the flow channels have a smallest inner diameter in the range of 0.4-1000  $\mu\text{m}$ .

55. (Amended) The method according to claim 42, wherein the flow channels have a smallest inner dimension in the range of 0.4-100  $\mu\text{m}$ .

56. (Amended) The method according to claim 42, wherein the labeled particles are fluorescent or coloured.

57. (Amended) The method according to claim 42, wherein the Reactant\* is predeposited in the matrix upstream of the DZ.

58. (Amended) The method according to claim 57, wherein the Reactant\* is predeposited in the matrix upstream of a sample application site.

59. (Amended) The method according to claim 42, wherein the particles which anchor the Capturer to the matrix are a synthetic polymer, a semisynthetic polymer or a biopolymer, which on its surface exhibits hydrophilic groups.

60. (Amended) The method according to claim 42, wherein the Reactant\* is captured in the DZ by formation of a ternary complex of Reactant'-analyte-Reactant\*, wherein the Reactant\* binds to the analyte simultaneously or in sequence and Reactant' is the firmly anchored Capturer or a reactant to which the Capturer is capable of binding by biospecific affinity.

61. (Amended) The method according to claim 60, wherein the analyte is an antigen and the Reactant' and Reactant\* are antibodies with specificity for epitopes on the analyte.

62. (Amended) The method according to claim 42, wherein the method is performed in connection with diagnosing allergy or autoimmune disease.

63. (Amended) A test kit when used for performing analytical methods in a flow matrix, which methods utilize biospecific affinity reactions to detect an analyte in a sample, which kit comprises (i) a flow matrix having a detection zone (DZ), in which there is a firmly anchored biospecific affinity reactant (Capturer), and (ii) and analytically detectable reactant (Reactant\*),  
wherein

- A) the Reactant\* has labeled particles as an analytically detectable group, and
- B) the Capturer is anchored to the matrix by immobilized particles which exhibit hydrophilic groups on their surface, wherein the particles anchoring the Capturer have a diameter smaller than a smallest inner dimension of the flow channels and do not interfere with detection of Reactant\* in the detection zone.

64. (Amended) The kit according to claim 63, wherein immobilization of a biospecific affinity reactant by covalent binding is to the hydrophilic groups on the Capturer particles.

65. (Amended) The kit according to claim 63, wherein immobilization of a complex mixture of biospecific affinity reactants is to the hydrophilic groups on the Capturer particles.

66. (Amended) The kit according to claim 63, wherein immobilization of a complex mixture of biospecific affinity reactants found in allergen extracts is to the hydrophilic groups on the Capturer particles.

67. (Amended) The kit according to claim 63, wherein immobilization of a complex mixture of biospecific affinity reactants found in biological material used to detect autoantibodies is to the hydrophilic groups on the Capturer particles.

68. (Amended) The kit according to claim 63, wherein the hydrophilic groups are hydroxy, carboxy, amino or sulphonate groups.

69. (Amended) The kit according to claim 63, wherein the analyte is an antibody of IgE or IgG type with specificity to allergens.

70. (Amended) The kit according to claim 63, wherein the analyte is an antibody of IgG, IgM or IgA type with specificity to autoantigens.

71. (Amended) The kit according to claim 63, wherein the particles anchoring the Capturer have a size in the range of 0.1-100  $\mu\text{m}$  and the flow channels of the matrix have a smallest inner dimension in the range of 0.4-100  $\mu\text{m}$ .

72. (Amended) The kit according to claim 63, wherein the particles which anchor the Capturer have a size in the range of 0.1-1000  $\mu\text{m}$ .

73. (Amended) The kit according to claim 63, wherein the particles which anchor the Capturer have a size in the range of 0.1-100  $\mu\text{m}$ .

74. (Amended) The kit according to claim 63, wherein the labeled particles in the Reactant\* have a diameter in the range of 0.01-5  $\mu\text{m}$ .

75. (Amended) The kit according to claim 63, wherein the flow channels have a smallest inner dimension in the range of 0.4-1000  $\mu\text{m}$ .

76. (Amended) The kit according to claim 63, wherein the flow channels have a smallest inner dimension in the range of 0.4-100  $\mu\text{m}$ .

77. (Amended) The kit according to claim 63, wherein the labeled particles are fluorescent or coloured.

DI 78. (Amended) The kit according to claim 63, wherein the Reactant\* is predeposited in the matrix upstream of the DZ.

79. (Amended) The kit according to claim 78, wherein the Reactant\* is predeposited in the matrix upstream of a sample application site.

80. (Amended) The kit according to claim 63, wherein the particles which anchor the Capturer to the matrix are a synthetic polymer, a semisynthetic polymer or a biopolymer, which on its surface exhibits hydrophilic groups.

81. (Amended) The kit according to claim 63, wherein the Reactant\* is captured in the DZ by formation of a ternary complex of Reactant'-analyte-Reactant\*, wherein the Reactant\* binds to the analyte simultaneously or in sequence and Reactant' is the firmly anchored Capturer or a reactant to which the Capturer is capable of binding by biospecific affinity.

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82. (Amended) The kit according to claim 81, wherein the analyte is an antigen and the Reactant' and Reactant\* are antibodies with a specificity for epitopes on the analyte.

83. (Amended) The kit according to claim 63, wherein the method is performed in connection with diagnosing allergy or autoimmune disease.

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